

CLAIMS

1. In a self-erecting, inflatable thermal blanket for covering and bathing a person in a thermally-controlled inflating medium, the improvement comprising:

a flexible base sheet having a head end, a foot end, two edges, and a plurality of apertures;

an overlaying flexible material sheet attached to a first surface of said base sheet by a plurality of discontinuous seams which form said overlaying material sheet into a plurality of communicating, inflatable chambers, said apertures opening through said base sheet into said chambers;

a continuous seam between said overlaying material sheet and said base sheet near said head end which closes ends of said inflatable chambers;

a non-inflatable section of said thermal blanket extending substantially between said continuous seam and said head end and including an end portion of said flexible sheet; and

said thermal blanket being sized to extend from a patient's pelvic and groin area to the patient's feet.

2. The improvement of claim 1 further including a non-inflatable foot drape.

3. The improvement of claim 1 further including an adhesive strip at said head end to adhere said head end to a patient and prevent migration of air towards a care site.

2 4. In a self-erecting, inflatable thermal blanket
for covering and bathing a person in a thermally-controlled
inflating medium, the improvement comprising:

4 a flexible base sheet having a head end, a foot
end, two edges, and a plurality of apertures;

6 an overlaying flexible material sheet attached to
a first surface of said base sheet by a plurality of
8 discontinuous seams which form said overlaying
material sheet into a plurality of communicating,
10 inflatable chambers, said apertures opening through
said base sheet into said chambers;

12 a continuous seam between said overlaying
material sheet and said base sheet near said head end
14 which closes ends of said inflatable chambers;

16 a non-inflatable section of said thermal blanket
extending substantially between said continuous seam
and said head end and including an end portion of
18 said flexible sheet; and

20 said thermal blanket being sized to extend from a
patient's neck to the patient's upper torso and to
cover the patient's arms and shoulders.

2 5. The improvement of claim 4 further including a
flat uninflatable section at said foot end.

2 6. The improvement of claim 4 further including an
adhesive strip at said foot end to adhere said foot end to
a patient and prevent migration of air towards a care site.

2 7. The improvement of claim 4 further including a head drape at said head end to drape over a patient's head and a vent for directing heated air under said head drape.

2 8. An inflatable thermal blanket for convectively controlling the temperature of a human body, comprising:

4 a self-erecting inflatable covering with a head end, a foot end, two edges, and an undersurface;

6 an inflating inlet for admitting a thermally-controlled inflating medium into said covering;

8 an array of apertures in said undersurface for exhausting a thermally controlled inflating medium from said covering to said undersurface;

10 means in said inflatable covering for equalizing the temperature of a thermally controlled inflating medium in said inflatable covering by circulating said inflating medium toward said two edges;

12 an uninflatable extension in said inflatable covering at said head end; and

14 said thermal blanket being sized to extend from a patient's pelvic and groin area to the patient's feet.

16 9. The thermal blanket of claim 8 further including a non-inflatable foot drape.

18 10. The thermal blanket of claim 8 further including an adhesive strip at said head end to adhere said head end to a patient and prevent migration of air towards a care site.

11. An inflatable thermal blanket for convectively
controlling the temperature of a human body, comprising:

a self-erecting inflatable covering with a head
end, a foot end, two edges, and an undersurface;

an inflating inlet for admitting a
thermally-controlled inflating medium into said
covering;

an array of apertures in said undersurface for
exhausting a thermally controlled inflating medium
from said covering to said undersurface;

means in said inflatable covering for equalizing
the temperature of a thermally controlled inflating
medium in said inflatable covering by circulating said
inflating medium toward said two edges;

an uninflatable extension in said inflatable
covering at said head end; and

said blanket being sized to extend from a
patient's neck to the patient's upper torso and
to cover the patient's arms and shoulders.

12. The thermal blanket of claim 11 further including
a flat uninflatable section of said foot end.

13. The improvement of claim 11 further including an
adhesive strip at said foot end to adhere said foot end to
a patient and prevent migration of air towards a care site.

14. The improvement of claim 11 further including a
head drape at said head end to drape over a patient's head
and a vent for directing heated air under said head drape.

15. In a self-erecting, inflatable thermal blanket for covering and bathing a person in a thermally-controlled inflating medium, the improvement comprising:

a flexible base sheet having a head end, a foot end, two edges, and a plurality of apertures;

an overlaying flexible material sheet attached to a first surface of said base sheet by a plurality of discontinuous seams which form said overlaying material sheet into a plurality of communicating, inflatable chambers, said apertures opening through said base sheet into said chambers;

a continuous seam between said overlaying material sheet and said base sheet near said head end which closes ends of said inflatable chambers;

a non-inflatable section of said thermal blanket extending substantially between said continuous seam and said head end and including an end portion of said flexible sheet; and

a flexible heater hose attached to said thermal blanket to provide heated air to said inflatable chambers, said flexible heater hose including a protective sleeve slideably disposed thereon to prevent hose contact with a patient.

16. An inflatable thermal blanket for convectively controlling the temperature of a human body, comprising:

a self-erecting inflatable covering with a head end, a foot end, two edges, and an undersurface;

an inflating inlet for admitting a thermally-controlled inflating medium into said covering;

8 an array of apertures in said undersurface for
10 exhausting a thermally controlled inflating medium
from said covering to said undersurface;

12 means in said inflatable covering for equalizing
the temperature of a thermally controlled inflating
14 medium in said inflatable covering by circulating said
inflating medium toward said two edges;

16 an uninflatable extension in said inflatable
covering at said head end; and

18 a flexible heater hose attached to said
thermal blanket to provide heated air to said
inflatable chambers, said flexible heater hose
20 including a protective sleeve slideably disposed
thereon to prevent hose contact with a patient.

2 17. A method for thermally warming a selected portion
or portions of a patient for rendering care to other
portions of the patient, comprising the steps of:

4 selecting one or more inflatable thermal
blankets sized to cover a portion or portions of
6 a patient to be thermally warmed so that care may
be administered to other portions of the
8 patient, said inflatable thermal blanket(s)
being of a type that comprise(s):

10 a self-erecting inflatable covering with a head
end, a foot end, two edges, and an undersurface; and

12 an inflating inlet for admitting a
thermally-controlled inflating medium into said
14 covering;

an array of apertures in said undersurface for
16 exhausting a thermally controlled inflating medium
from said covering to said undersurface;

18 means in said inflatable covering for equalizing
the temperature of a thermally controlled inflating
20 medium in said inflatable covering by circulating said
inflating medium toward said two edges;

22 an uninflatable extension in said inflatable
covering at said head end or said foot end; and

24 an adhesive strip at said head end or said foot
end having an adhesive portion facing in the direction
26 of said thermal blanket undersurface and a removable
backing covering said adhesive portion;

28 said method further comprising the steps of:
placing the thermal blanket(s) over the
30 portion(s) of the patient to be thermally warmed
such that the adhesive portion of said
32 blanket(s) is oriented toward a care site;

removing the backing from said adhesive
34 portion and adhering the adhesive to the patient
to prevent the migration of air towards a care
36 site;

attaching a heating tube or tubes from a
38 heating unit to said thermal blanket(s);

selecting an appropriate temperature and
40 activating the heating unit; and

monitoring the patient's temperature
42 regularly and adjusting the heating unit
temperature as required by the patient's temperature.

2 18. The method of claim 17 wherein the area(s) of a
patient to be covered include(s) the area extending from
the patient's pelvic and groin area to the patient's feet.

2 19. The method of claim 18 wherein said thermal
blanket extends from the patient's pelvic and groin area to
the patient's feet and wherein the adhesive portion of said
4 thermal blanket is adhered to the patient above the
patient's pelvic and groin area.

2 20. The method of claim 19 further including the step
of placing a protective sleeve over the heater tube
adjacent said thermal blanket to prevent the heater tube
4 from contacting the patient.

2 21. The method of claim 17 wherein the area(s) of a
patient to be covered include(s) the area extending from
the patient's neck area to the patient's chest and
4 including the patient's arms.

2 22. The method of claim 21 wherein said thermal
blanket extends from the patient's neck area to the
patient's chest and also covers the patient's arms and
4 wherein the adhesive portion of said thermal blanket is
adhered to the patient's chest.

2 23. The method of claim 22 further including the step
of adhering a head drape on or near said head end of said
thermal blanket and draping the head drape loosely over the
4 patient's head.

2 24. The method of claim 17 further including the step
of draping a conventional blanket or blankets over said
thermal blanket(s).

2 25. A thermal care system for thermally warming a
patient comprising:

4 an inflatable thermal blanket having at least one
inflatable chamber therein and an air inlet for
admitting air to said chamber;

6 a heater/blower assembly providing a source of
heated air;

8 a heater tube extending from said heater/blower
assembly to said thermal blanket air inlet; and

10 a protective sleeve slideably disposed over said
heater tube adjacent said thermal blanket air inlet to
12 prevent said heater tube from contacting the patient.

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